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ABSTRACT

The future of academic content reforms relies on the relationship between policies and the decisions of teachers. Because the agreement of teachers with district policies is congruent with teacher autonomy, the dichotomy of district control and teacher autonomy is invalid. Districts execute instructional leadership by providing teacher autonomy or by persuading teachers of the benefits of their decisions. A survey regarding district influence on teachers' content decisions in fourth-grade mathematics was administered in five states in spring 1982. In each state, between 20 and 30 districts were selected. The overall response rate was 63 percent. The survey responses revealed that none of the districts encouraged teacher autonomy; objectives and testing programs were the most often used policies; there were no clusters of policies; most districts opposed the use of power; the topic emphasis and the content policies were consistent; and there was no indication of contradictory demands on teachers. The three elements of district instructional leadership include establishing goals; communicating these goals to teachers with consistency, specificity, and with all available means; and obtaining teacher support through persuasion. District policies have authority if teachers are persuaded of their advantages. Included are 10 tables, 7 footnotes, and 32 references. (RG)

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Abstract

Results from a multistate study illustrate a new perspective on district instructional leadership, a perspective that moves beyond the autonomy-control dichotomy. This study also shows that general claims about teaching and policy may not apply to policies about academic content. For fourth-grade mathematics, districts seem to have vague intentions to direct instructional content but no strategy for doing so. Districts do not develop teachers' capacities for making content choices, but neither do they make systematic use of the tools available to persuade teachers to adopt district content priorities. Few districts deserve criticism for oppressive content control, but few seriously support teacher autonomy.

INSTRUCTIONAL LEADERSHIP AT THE DISTRICT LEVEL: A CLOSER LOOK AT AUTONOMY AND CONTROL

Robert E. Floden, Andrew C. Porter, Linda E. Alford,
Donald J. Freeman, Susan Irwin, William H. Schmidt, & John R. Schwille*

Academic content is a cornerstone of school instruction. Although this fact has been neglected, it is returning to guide research, practice, and policy. Scholars emphasize the importance of academic content (Buchmann, 1984; Schwille et al., 1983; Shulman, 1986), proposals for school reform prominently feature strengthening the curriculum (e.g., Adler, 1982), and state and local educational policies highlight content issues. The call for improved academic content is not new; content is a perennial issue. For example, at one time the federal government hoped to implement "innovative" curricula in schools. Recently the federal government has returned much educational responsibility to the state and local levels, and the push is for more attention to traditional academic subjects.

Regardless of the direction of curriculum reform or the level at which policies are set, past studies have clearly shown that change works through or around teachers. If teachers' central role in implementation is neglected,

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attempts to reform schools will likely fail (Elmore, 1983; McLaughlin & Marsh, 1978). Their direct instructional contact with students gives teachers one key to change. The consequences of content-related policies depend on relationships between policies and teachers.

No simple link connects a policy with what teachers think and do, nor do the relationships run only in one direction from a content policy to teachers. Teachers work as part of a complex organization. Various organizational structures and activities (e.g., the "egg-crate" style of school architecture, the existence of pull-out programs for compensatory education) may influence teachers decisions; likewise what teachers do (or even what they might do) constitutes part of the system and influences other actors (e.g., school administrators) in the system (Cohen, 1982).

These complex, variable, and ambiguous relationships preclude simple formulas either for shaping school practice to fit policy or for forming policies that build on teachers' knowledge and values. Nevertheless, research may illuminate previously unforeseen consequences of changes in policy or practice. Scholarship on the impact of educational policy (e.g., Kirst & Jung, 1980; Wise, 1979), for example, has contested common conceptions, such as the idea that the growth of federal educational policy reduces the power of local school districts (Cohen, 1982).

Studies of teaching and policy, however, seldom focus on academic content. Many claims (e.g., that teaching is overdetermined by multiple, conflicting policies) do not distinguish among types of policies or focus on policies about the means of teaching particular student groups (e.g., the handicapped). General statements about policies and their effects may seem plausible, but a focused look at content policies may also reveal surprises. The importance of academic content justifies specific attention.

Close study of content policies and teachers' content decisions requires focusing on particular content, narrowing both the range of academic subjects and the range of grade levels. A study encompassing the full school curriculum would likely result only in broad generalities. In the work reported here, we focus on fourth-grade mathematics, an area which includes content typically seen as crucial for all pupils (e.g., whole-number multiplication), as well as content not taught to all children (e.g., geometric concepts). Further studies might compare this context for studying content policies with other instructional areas (e.g., special education, Advanced Placement physics), or with decisions that cross curricular areas (e.g., putting mainstreaming together with the desire to have a first-rate school orchestra).

We restrict attention to the impact of district policies on teachers. This relationship is of evident importance but can profit from elaboration. Its study provides a new appreciation of the ways teachers and policymakers jointly influence instructional content. Understanding this impact is important, especially as it is the center of many people's attention.

Our focus should not, however, be read as an endorsement of a strong hierarchical model of content selection. Although it is beyond the scope of our study, the influence of teachers and teaching practice on state and local content policy also needs examination. Knowledge is distributed throughout the educational system. It is unclear who could best make which decisions or even what "best" would mean in this context. Our focus permits detailed examination of policy impact, but policy impact is only part of a network of influence and action.

We focus on district policy. Federal policy has received most attention in the past, but restrictions in the federal educational role and increased interest in local policy suggest studying policies closer to teachers. In other papers we consider state content policies (Schwille et al., in press)

and the role school principals play in teachers' content decisions (Floden et al., 1984).

Our analysis of district policy uses a concept--instructional leadership--often used to explain achievements at the school level. By elaborating this concept and extending it to cover district policies, we are able to move beyond the autonomy-control dichotomy often used to discuss the impact of policy on teachers. We use results from a multistate sample to illustrate our new perspective on district instructional leadership. The picture of district leadership that emerges is one of districts with a vague intention to direct instructional content but without any considered strategy for doing so. Districts do not leave teachers to their own devices but neither do they make systematic use of the tools available to persuade teachers to adopt patterns of content decision making. They rely neither on the carrot and the stick nor on developing teachers' capacities for making responsible choices. To highlight the advantages of our perspective, we begin by reconsidering a perspective often used to analyse the full range of educational policies.

Central Control vs. Teacher Autonomy: A False Dichotomy

Recognition of teachers' importance in educational reform has led some researchers (e.g., Elmore, 1983; Fenstermacher & Amarel, 1983) to criticize existing policies that dictate and constrain and to advocate changing to policies that would liberate teachers to make their own choices. The contrast is often cast (e.g., Shulman, 1983) as a tension between control and autonomy. On the one hand, government and school administrators want some control over classroom instruction, so that they can put general plans for school curriculum into practice and see that teachers are using the most effective instructional techniques. On the other hand, because teachers know most about individual students, they are in the best position to make adjustments to fit

particular situations. Both approaches are complicated. The teaching force is enormous--2.4 million teachers--and encompasses comparably enormous diversity in the knowledge, skills, and dispositions required for teaching any curriculum. Most of the research literature is critical of efforts to control teachers through top-down central policies; yet solutions suggested for educational problems typically include strengthening central control and limiting teacher choice.

The dichotomy of control and autonomy is obscured by the complex and uncertain organizational character of school systems. On the one hand, teachers are portrayed as constrained by omnipresent mandates for action. On the other hand, the formal school hierarchy seems to have little power to control teachers' actions (e.g., Elmore, 1983; Weick, 1976). Not only can teachers escape most supervision by simply closing their classroom doors, but the reward structure of most school systems also gives little power to principals or central staff (Lortie, 1975; Ross, 1980; Sarason, 1971). Because pay and promotion are not the primary sources of teachers' job satisfaction, and because management structure of schools is loose, teachers' dominant goals are seldom those of the organization (Feiman-Nemser & Floden, 1985; Lipsky, 1980).

Moreover, some researchers have suggested that the welter of conflicting mandates has the ironic effect of promoting teacher autonomy. Since following all such directives is impossible, teachers gain autonomy through being forced to choose which mandates to follow and how strictly they should be interpreted (Schwille et al., 1983; Shulman, 1983).

What emerges is a bleak picture. Policymakers produce an ever increasing number of mandates, but have little success in getting them carried out. Teachers feel oppressed by the mandates, but do not follow them. Contradictory

directives thrust autonomy on teachers, who lack the time, resources, and institutional support necessary to use that autonomy responsibly.

Explaining Educational Effectiveness

That discouraging assessment makes educational successes anomalies that require explanation. Some schools are able to devote time to the curriculum in ways that further student learning. What happens in these schools to make that possible?

Two characteristics are often named in explanations of why some schools are unusually effective (e.g., Purkey & Smith, 1983). The first is that the school principal is an instructional leader. The second is that teachers and administrators agree about the school's educational goals. These two characteristics provide a new angle on the roles of teachers and policymakers in instructional improvement. In these effective schools, teachers retain a key position in instructional improvement. Teachers agree on what content is most important for students to learn, or at least they agree on a set of objectives or a test that implicitly defines their instructional goals. But a policymaker--the school principal--also plays a key role, providing leadership, that, among other things, leads to school agreement on goals.

The recognition that both teachers and principal are important forces us to reject the dichotomy between control and autonomy. The instructional leader is doing something that promotes a commonality of purpose, which suggests central direction. But teachers are not caving in; they are working toward goals they endorse. The key to resolving the control-autonomy dichotomy is seeing that, in situations where teachers are convinced that a policy has merit, compliance is consistent with professional autonomy. The question is not how central authorities can control teachers or how teachers can be allowed to do their own thing, but how "policies can be mandated in a manner

likely to enlist the willing decision making of the teachers as collaborating allies rather than as unwilling subordinates grudgingly conceding to their lack of power" (Shulman, 1983, p. 492).

District Instructional Leadership

We focus on instructional leadership at the district level, although our framework for thinking about leadership could be applied to the school or state level as well.[1] Previous discussions of autonomy and control suggest two contrasting ways of thinking about district instructional leadership. One approach would remove central controls and give teachers the additional knowledge, skills, and dispositions necessary for professional autonomy. Another approach would continue central decision making but work to persuade teachers of the legitimacy of those decisions. The emphasis on persuasion is significant: Attempts to control without persuasion are forms of institutional coercion, not leadership.

Teacher autonomy requires more than an absence of central directives. Making individual instructional choices without adequate knowledge and understanding to support those choices is being arbitrary, not autonomous (Strike, 1982). If teachers are to act with professional autonomy, they must develop stronger understandings of subject matter, students, and the purposes of schooling (Buchmann, 1984, 1986). This is a major undertaking, requiring substantial district commitment to inservice education and commensurate teacher commitment to serious study. Accomplishing both requires a leader who can effectively communicate the value of enhancing the education of teachers to many groups, including the teachers themselves. The chances of success, even with an effective leader, are unclear, since the effects of systematic efforts to support autonomous teacher content decisions are seldom studied.

Likewise, little is known about district leadership that focuses on gaining teachers' commitment. Few studies have considered what school districts might do to persuade teachers of the appropriateness of district content policies. Studies of policies from an administrative perspective have concentrated on resource allocation (e.g., Kirst & Jung, 1980) or have described how policies that ignore teachers can go astray (e.g., Weatherly, 1979). Both types of studies acknowledge or support the importance of gaining teacher support, but neither has investigated how that is being done or might be done.

In our initial study of district instructional leadership, we consider such questions as:

> Are districts providing strong, conflicting mandates (as critics of control contend)?
>
> Are districts trying to support autonomy?
>
> What are districts doing to provide leadership that gains the active cooperation of teachers?

A Framework for Studying District Instructional Leadership

Teachers make a variety of decisions about content: how much time will be devoted to a subject such as mathematics, what topics will be taught, to whom they will be taught, when and how long each topic will be taught, and how well topics are to be learned. Taken collectively, these teacher decisions define a student's opportunity to learn, especially for school-based subject matter such as mathematics (Carroll, 1963).

District instructional policy will be carried out through the content decisions of individual teachers. At the extremes, districts may either (a) try to influence those decisions to fit centrally determined priorities, or (b) provide the education, support, and freedom teachers need to make autonomous professional content decisions. To find out what districts are

doing to promote autonomy, one could examine the extent and nature of in-service education in the district, and the extent to which districts forego policies that would direct teachers' content decisions (e.g., specific instructional objectives, mandated textbooks).

Districts trying to influence teachers' content decisions have several policy tools at their disposal. Districts can direct all teachers to use a single textbook series, for example, or can prescribe instructional objectives for all teachers. Policies can be used in concert with each other to address several content decisions and to give each policy greater weight. For example, a set of district objectives tells the teacher what topics ought to be taught. If each objective is accompanied by a mastery test, the teacher is also provided guidance on how well the topics are to be learned. Some states and some districts provide guidelines on how much time to spend each week on mathematics. Schools may press for whole-group or for individualized instruction and this in turn affects decisions about content taught to each student.

One can imagine three different approaches a district might take to getting teachers' cooperation. One approach would be simply to create and make known policies, without doing anything further to see that they are carried out. Such school systems would probably tend to be "loosely coupled" organizations (Weick, 1976), where policies set at one level of the organization would not be reflected in decisions made at other levels. The research literature on schools as organizations (e.g., March, 1978; Meyer & Rowan, 1978) suggests that this may be the modal pattern. It would be going too far, however, to suggest that all districts fit this model. District decisions may also be carried out at the classroom level; such "tight" coupling may even be commonplace in some districts (LaMahieu, 1984; Resnick & Resnick, 1985).

The districts that try to make their policies more than mere "paper policies" may either take a "carrot and stick" approach or may try to take

actions that would enlist teachers' support. The first approach matches the image of districts where teachers are beleaguered by mandates from on high; the second matches the image of teachers participating in or persuaded by the districts' leadership.

Extending previous analyses of educational policies (particularly Spady & Mitchell, 1979), we suggest that four attributes capture important differences in the ways districts attempt to influence teachers' content decisions: consistency, prescriptiveness, power, and authority. By making policies consistent with one another (in what content decisions they suggest) and prescriptive of specific content teachers should teach (to particular children, for a particular length of time, etc.), districts provide clarity about what they wish to be done. This clarity would be important whether districts try to force changes or to gain teachers' willing support. Districts trying to influence by mandate would back policies with power to reward or penalize. Districts trying to persuade teachers to follow their leadership would try to support policies by drawing on sources of authority.

Consistency and prescriptiveness are both characteristics of the content messages in policies. What are teachers asked to do? Consistency refers to similarities in content messages across policies and to ways different policies reinforce each other. For example, the content of district tests may or may not match topics specified by instructional objectives. Prescriptiveness refers to how explicit and specific a policy is in telling teachers what action the district desires. For example, there would be little prescriptiveness in providing teachers with copies of a district-adopted textbook without guidance about how it should be used. It would be more prescriptive to advise teachers to follow the textbook closely, so that students across the district face a common curriculum.

A policy may gain authority through appeal to law or rule, consistency with social norms, agreement with relevant expert knowledge, or support from charismatic individuals (Spady & Mitchell, 1979). Policies have power when they are tied to rewards and sanctions. Types of rewards and sanctions parallel types of authority.[2] This framework of policy attributes is a potentially powerful way of describing district policies. By considering the actions districts typically take to influence content, the content decisions teachers make, and the attributes that may lead to greater policy influence, one can reexamine district actions and their likely consequences. Do districts actively seek to direct curriculum? Do they support and encourage individual teachers to make such decisions for themselves? Or is the content of elementary-school mathematics instruction left to take care of itself?

A Survey of District Efforts

To illustrate this framework, we consider a survey of existing practices. Although supplemented by an analysis of state policies, the survey itself focused on what individual districts were doing that might affect teachers' decisions about instructional content. As in our other studies of teachers' content decision making, we focused on a particular curriculum area--fourth-grade mathematics--rather than asking general questions about school curriculum. The survey was administered during the spring of 1982, just prior to the wave of reports advocating changes in public education. Thus, the results of this survey provide a baseline for considering the effects of that increased public attention. In addition, because previous research has neglected district-level curriculum policy, these baseline data are the beginnings of an understanding of policy operation at the local level.

The survey was administered in five states (California, Florida, Michigan, New York, and South Carolina), chosen to represent variation in

types of policies, overall strength of policies, and school population served.[3] In each state, at least a 5% sample of districts (not less than 20 districts nor more than 30 districts per state) was selected using a probability-proportionate-to-student-enrollment sampling design;[4] that is, a district with a pupil enrollment of 100,000 was 100 times as likely to be chosen for our survey as a district with an enrollment of 1,000. Such a sample is "self weighting" for statements about the number of students affected by a particular policy. For example, if 40% of the districts in our Michigan sample have a mandated text, 40% is also an unbiased estimate of the percent of students in Michigan using a mandated text.

Questionnaire items were written to gather information about the character and perceived effects of district policies that might influence teachers' content decisions. The district policies included (a) administration and review of district-level tests, (b) district mathematics objectives or curriculum guides, (c) mandated textbooks and recommendations for textbook use, (d) recommendations for amount of time allocated to mathematics instruction, and (e) teacher inservice or professional development opportunities (which might influence what teachers want or feel prepared to teach). For policies on objectives, tests, and textbooks, questions were asked about perceived effects and about attributes of consistency, prescriptiveness, authority, and power.

Questionnaires were sent to (a) the district curriculum director (or mathematics coordinator if the district had one) and (b) the principal and one fourth-grade teacher in randomly chosen elementary schools (up to eight per district). The questions were assigned to respondent groups based on judgments of which group or groups were in the best position to provide the information and on considerations of minimizing the response burden for any

one group. Two drafts of each questionnaire were pilot tested with small sets of Michigan teachers, principals, and curriculum directors.

A single packet of materials was mailed to the building secretary in each school in the sample. In a cover letter, we asked the secretary to distribute the enclosed folders to the principal and to the fourth-grade teacher at the school who had the most seniority in the district. Each folder contained a cover letter to the teacher or principal, a copy of the appropriate questionnaire, and a postage-paid return envelope. Comparable folders were prepared and mailed directly to the curriculum director in each district. After follow-up mailings and phone calls, the overall response rate was 63%. Defining a usable district response as returned questionnaires from the curriculum director, two principals, and two teachers, the district response rate was over 90%.

Are Districts Trying to Support Teacher Autonomy?

If districts were making a serious attempt to promote teacher autonomy, they would have substantial amounts of inservice education (e.g., more than five days per year) and would encourage (or at least allow) teachers to come to their own decisions about mathematics instructional objectives, about a mathematics textbook, and about the amount of time devoted to mathematics. Both characteristics are required to support autonomy. Providing inservice education without encouraging independent teacher decisions might be little more than an additional explanation of policy. For example, substantial time might be devoted to explaining how teachers should use a new textbook. Freedom of decision without inservice education may lead to autonomy or may lead merely to content based on whim or personal preference (Buchmann, 1986). In any case, none of the districts in our sample seriously attempt to promote autonomy.

On average, districts require less than two days of inservice beyond the state requirements (the typical state requirement is one day of inservice). That is far from the amount of education required to ensure that teachers have a strong basis for content decisions. All but one of the districts in our sample have either a set of district objectives or a mandated textbook, and that unusual district has both a district testing program and a minimum time requirement for fourth-grade mathematics. Districts do not appear to be intentionally delegating responsibility for content decisions to individual teachers. Strong attempts to support teacher autonomy were rare even before the present reform efforts, which often increase attempts to maintain central district control of curriculum.

Do Districts Mandate and Enforce Tight Instructional Control?

Given that districts do not fit the model of instructional leadership through promotion of professional autonomy, do they deserve the criticism that they are forcing teachers to follow district directives about instructional content? Do teachers feel pressed by a large number of often inconsistent orders about mathematics content? We draw on three parts of our survey to check whether these common criticisms apply to district policies for elementary mathematics content. If not, this would show that general claims about the impact of policy on teachers should not be generalized to specific policy areas. It would raise questions about which specific policy areas do deserve the criticism.

First, we consider whether teachers feel compelled to follow district curriculum policies. Do they believe that they would be punished in some way if they do not comply? Do they perhaps believe that the district would reward behavioral compliance, putting teachers in a situation in which they might feel pressure to go along with policies even though they do not agree with

them? Second, we consider whether teachers feel that policies suggest incompatible directives for content decisions. Is it true that policies make conflicting demands, creating situations in which teachers must choose for themselves which to follow?

Patterns of District Curriculum Policy

We begin the analysis by describing which curriculum policies are most frequently used by districts, and in what configurations. For this description, we rely on curriculum directors' responses. Overall, districts reported making heavy use of testing programs and objectives with only moderate emphasis on time and texts. In four out of the five states, more than 90% of the curriculum directors surveyed reported district testing; the low value (50%) for the fifth state, South Carolina, may be explained by the recent increase in state testing. Similarly, most students in every state were in districts with curriculum objectives; in three out of five states, more than 90% of responding districts had objectives, and the lowest figure (for Michigan) was over 70%.

Fewer districts appear to use textbook adoption--requiring that the same textbook be used by all teachers at a particular grade level or that books from a single series be used in all elementary grades--as a means to influence instructional content. Across all five states, about 70% of students are in districts which mandate particular textbooks. The highest usage was reported in Michigan, where 77% of sampled districts have textbook adoption. Only about half of all districts surveyed have time guidelines, even though opportunity to learn has become widely accepted as a prime determinant of school learning.

Is there any evidence that districts use policies in concert with one another? Do, for example, these various policies fall on an ordered scale,

with districts using a single initiative (such as objectives) to indicate a minimum attempt to control instructional content and adding one policy after another if they wish to exercise tighter control? Or are there obvious clusters of policies? Do objectives and district tests, for example, form a unit that districts adopt or do without? If such patterns existed, they would produce associations among some pairs of policies.

The survey results, however, show no statistically significant association between having one of these policies and having any other policy. Chi-squared tests for association do not indicate statistically significant (even at the liberal .10 alpha level) dependency among any pairs of policies. Direct examination of cross-tabulations of different policies shows this same lack of association. For example, among districts with a district-wide test, 90% had district mathematics objectives, virtually the same fraction as among districts without a test (85%). Or, among districts with objectives, 59% had recommended time for teaching mathematics, and among districts without objectives, 55% had such a policy--virtually the same proportion. In other words, districts with one type of policy seem no more likely (than districts without that policy) to have other policies.

Rather than deciding to set central instructional goals and then trying to communicate those goals through all available means, districts tend to make decisions that do not lead to any clear pattern of curriculum policies. This seems to support the view that policies are added piecemeal, creating the danger that the total set of policies will confront teachers with a welter of incompatible directives (Wise, 1979). Below, we will examine whether that danger has been realized within the domain of mathematics content policies.

The piecemeal addition of policies may reflect a reactive approach to policymaking, adding a policy if someone suggests it, but not thinking about the full set of policy tools and how they might be used to obtain teachers'

cooperation in, for example, having particular topics taught to all students. The piecemeal addition might, however, simply reflect the variety in local situations that districts have faced over time. It might even reflect a partially conscious intention to create an ambiguous policy environment in which teachers with initiative could find ways to make their own decisions. As we learn more about the particulars of district content policies, new questions emerge.

Do Teachers Feel Forced to Comply With District Mandates?

For the policy areas of objectives, testing, and textbooks, teachers surveyed were asked a set of nine questions, which assessed their beliefs about whether individual district policies had particular attributes of authority and power; curriculum directors were asked similar questions about objectives. Survey items described the presence of a type of authority or power and asked the teachers whether they agreed that the type of authority or power was associated with that policy in their district, using a five-point scale (strongly agree, agree, no opinion, disagree, strongly disagree). The responses for teachers in a district were averaged to get a rating on the degree to which the policy was seen as having that type of authority or power in the district.[5] Here we consider power; responses to questions about use of authority will be discussed when we consider district leadership that tries to persuade teachers. Power was assessed by asking teachers whether those who followed the policy were rewarded and whether those who did not would likely be penalized.

In the five states studied, few districts tended to use appeals to power. Teachers do not generally believe that they will be either rewarded for teaching the content indicated by district policies or punished for failing to teach that content (see Tables 1 and 2). A substantial majority of districts

fell into the "disagree" half of the scale, with about one-fourth in the "disagree to strongly disagree" category. Teachers seem to perceive the likelihood of rewards less than the chance of penalty; less than 15% of the districts fall into the "agree" half of the scale for rewards. In contrast, almost 30% of the districts are on the "agree" side for penalties associated with not following district objectives.

Table 1

Teachers Likely to Be Rewarded for Choosing Content Suggested by Policy [a]

Policy	Strongly Agree to Agree	Agree to No Opinion	No Opinion to Disagree	Disagree to Strongly Disagree
Objectives	0.5%	7.4%	52.6%	39.5%
Test	2.3%	11.8%	49.4%	36.5%
Textbook	0.7%	6.1%	52.7%	40.5%

Table 2

Teachers Likely to Be Penalized for Not Choosing Content Suggested by Policy [a]

Policy	Strongly Agree to Agree	Agree to No Opinion	No Opinion to Disagree	Disagree to Strongly Disagree
Objectives	1.6%	27.9%	53.2%	17.3%
Test	2.8%	19.1%	52.2%	25.9%
Textbook	1.3%	10.8%	61.5%	26.4%

[a] Expressed as percentage of districts with policy of this type.

Still, for every policy, a substantial majority disagree with the presence of any use of power. The stereotype that teachers feel forced to teach particular content by their district may accurately describe some districts, but it is clearly not the mode.[6] The absence of use of power is not surprising; school administrators lack power resources. For example, salary schedules are determined chiefly by seniority in most districts. This lack of choice about the exercise of power makes district efforts to give authority to their policies especially important.

Are Teachers Faced With Incompatible District Demands?

A second criticism of district practice is that district demands conflict, hence are impossible to carry out. We have shown that "demands" may often be too strong a term; we now consider whether teachers sense incompatibility among mathematics content policies. The previous analysis has suggested that districts put instructional policies together piecemeal, making incompatibilities, or at least inconsistencies, seem likely. The survey afforded comparison of topic emphases among some pairs of policies. For topics on which emphasis seemed likely to vary (problem solving, metric measurement, and probability and statistics), curriculum directors were asked whether these topics were used for textbook selection and whether they were part of general district content priorities. Consistency would be indicated if districts used high priority topics, but not low priority topics, in textbook selection.

The comparison between degree of emphasis in these areas is displayed in Table 3. The main diagonal for each of the topics indicates the highest consistency; the upper-right and lower-left corners show inconsistency. For each of these three topics, more than half the districts with mandated textbooks reported having attached the same importance to the topic in the

textbook selection process as they gave it generally. This comparison of topic emphasis suggests general consistency in topic emphasis across content policy areas.

Table 3

Curriculum Directors' Reports of Consistency Between Importance of Topic in District and Importance of Topic in Textbook Selection

Topic	Importance in text selection	Importance in District[a] Little or no importance	Some importance	Major importance
Problem solving & applications				
	Little or no importance	1	0	1
	Some importance	0	12	17
	Major importance	0	3	46
Metric measurement				
	Little or no importance	15	13	1
	Some importance	5	24	4
	Major importance	2	6	5
Probability & statistics				
	Little or no importance	3	7	1
	Some importance	0	40	7
	Major importance	0	5	16

[a] Figures represent number of districts.

A substantial fraction of the districts attaching major importance to one of these topics do not give the topic major importance when selecting a mathematics text. One-third of the 24 districts attaching major importance to probability and statistics, for example, did not say that emphasis on those topics was of major importance in selecting the textbook. Yet this topic is not covered in all elementary-school mathematics textbooks. It may be, however, that some or all of these districts provide probability and statistics instruction through supplementary commercial materials or through materials prepared by the district.

Consistency was also assessed by questions about overall correspondence among policies. For districts with both a district test and district mathematics objectives, teachers and curriculum directors were asked whether the tests provided a good measures of student performance on the objectives. Curriculum directors were also asked whether coverage of district objectives played an important part in the selection of textbooks.

Again, most districts seem characterized by consistency, not conflict, among their mathematics content policies. Among districts with both tests and objectives, over 85% of the curriculum directors believed that their district-wide tests provided a good measure of student performance on district mathematics objectives. In these districts, most teachers, who probably have less reason for exaggerating the rationality of such district decisions, agreed. In over 85% of the districts with both objectives and tests, half or more of the responding teachers believed there was a good content match between the two; in over half the districts, <u>every</u> responding teacher agreed.

For districts with objectives and a mandated textbook, about 75% of the curriculum directors reported that whether the series adequately covered topics in the district objectives was of major importance in selecting the

series; only 7% said it was of little importance. Principals perceived even greater consistency--no responding principal in any of these districts said that adequate coverage of district objectives was of little importance in text selection. (We did not ask teachers this question.)

The picture that emerges contradicts the stereotypic picture of teachers confronted with incompatible demands, at least within their decisions about elementary-school mathematics content. While there were no clear patterns of multiple polices being used in conjunction with one another, neither was there evidence that policy formulation is so disjointed that it results in conflicts. Teachers and principals seem to believe that the district instructional policies reinforce one another.

This result is puzzling, given analyses that have shown inconsistencies between virtually all combinations of mathematics textbooks and standardized tests (e.g., Freeman et al., 1983). One possible explanation is that teachers do not think that a district standardized testing program or the mandated use of a particular textbook represents any clear message about the content decisions they should make. For example, the test is typically thought of as a sample of the domain being tested; textbooks, in contrast, usually include more content than a teacher will be able to teach in a year. Moreover, teachers may not be clear whether the district's selection of a test or text represents a suggestion for what to teach or is based on some other rationale, for example, the desire to obtain a volume discount. Another possible explanation is that the content messages have been poorly communicated or are so general that teachers are unaware of what content is tested or how a text is to be used.

Whatever the explanation, this analysis shows that the image of districts making multiple, conflicting demands on teachers does not carry through to content policies in mathematics. Within this realm, it is a myth, perhaps

created to strengthen the argument for teacher autonomy. Most districts do not demand that teachers make any particular content decisions, and the requests that are made seem to be consistent, rather than conflicting.

This result raises the question of where inconsistencies among policies arise. Do most teachers believe that their districts present a consistent picture of content priorities across the academic curriculum? Do all district policies, for example, give the same message about the relative weight given mathematics and social studies? Or do conflicting demands only arise between content policies and other policies? Consistency within mathematics content policies raises questions about broad generalizations of policy incompatibility.

Components of District Leadership

Earlier, we argued the potential advantages of district instructional leadership through persuasion (rather than coercion). Since districts apparently intend some central control over content decisions, and since they apparently are not exercising control through the use of power, the possibility remains that they are already acting to exercise influence by gaining teachers' willing cooperation. Our framework provides a means for examining what districts are doing to gain that cooperation, and what more they might do.

District instructional leadership may be thought of as having three parts: establishing goals, clearly communicating those goals to teachers, and gaining teachers' support for those goals. The first part will not be considered here. We mention it, however, because its importance is often neglected. Districts gain little if teachers follow common patterns of content decisions, but those patterns have little educational or social value. For the present, we will assume that the district decisions about what content

teachers ought to teach (to whom, for how long, etc.) are defensible, and we will concentrate on what districts do to get teachers to act accordingly.

Clear communication of what content decisions the district thinks teachers should make is a necessary prerequisite to influencing teachers' decisions. If teachers do not understand how the district thinks they should act, there is little chance of them acting accordingly. We will look at clear communication in terms of the consistency and prescriptiveness of content messages, as well as the variety of policies used.

Consistency Again

We noted above that most districts seem consistent in the content messages sent to teachers. Textbooks are often chosen to match district content priorities; the textbooks are thought to do a good job of covering district objectives; and, testing programs are likewise believed to provide adequate assessment of district objectives. This consistency should contribute to the clarity with which districts tell their teachers what content decisions they support. Certainly, if districts gave conflicting messages, teachers would have no chance of endorsing district policy. The next logical question is whether these consistent content messages are specific enough to suggest anything about particular content decisions.

Prescriptiveness

Prescriptiveness includes both (a) being specific about what content should be taught to whom and to what standards of achievement and (b) stating explicitly that the particular content decisions are expected and not intentionally left to the teachers' discretion. An illustration of how prescriptiveness might be determined extends to the examination of consistency between district objectives and mandated textbooks. Rather than leave teachers

uncertain about which parts of the textbook teachers should be teaching (to whom, etc.), the district could prescribe use of specific sections of the textbook with specific groups of students. If the textbook and objectives policies were to be consistent, these prescriptions would match the district objectives. Such a prescriptive policy would additionally make clear that the choice of the textbook was intended to carry a choice of specific content.

In the survey, curriculum directors were asked whether their district provided a list of assignments that identified textbook or workbook lessons for each objective--one method of indicating which parts of the text teachers should make sure to teach. As indicated above, almost all districts appeared to have chosen texts consistent with their objectives. But only about half the sampled districts with objectives had taken this further, prescriptive step.

Prescriptiveness might similarly be examined for objectives and tests. Do districts point out that topics not included on the test, but listed among the objectives, remain important to teach? Or do they indicate that, although only a sample of the desired topics can be included on any one test, the district expects teachers to give equal weight to instruction on other district objectives? The prescriptiveness seen for texts and objectives suggests that, although almost every district tests topics in its objectives, far fewer may make those policies prescriptive, indicating what content decisions they hope to encourage with these tests and objectives. Minimum time guidelines provide another example. This policy is clearly prescriptive, but is used in only about half the districts in our sample.

This brief analysis of policy prescriptiveness suggests one explanation for the loose coupling that often characterizes school systems. Teachers may make decisions that appear to depart from district policy because they do not

know whether a particular decision is or is not consistent with district policy ("Am I supposed to teach every topic in the book?") or because they cannot tell whether the district is providing options to be used at the teachers' discretion or strong suggestions for desired practice ("Isn't it all right if I use old texts still available in my building?"). Part of exercising leadership is letting others know that you are trying to lead them.

Use of Multiple Policies

Teachers think they are more likely to change their content decisions when the same content message is communicated in a greater number of ways, for example, having the same topic in both objectives and texts rather than only in objectives (Floden, Porter, Schmidt, Freeman, & Schwille, 1981). If districts want to provide instructional leadership, they should take advantage of the several means available to communicate their content messages. We showed above that, whereas virtually all districts have at least one policy with implications for content decisions, the patterns of use do not suggest that districts attempt to use multiple policies to get their message across. The patterns of policy use suggest that policies are adopted individually (perhaps because of a general feeling that such a policy is desirable), rather than as part of an attempt to provide instructional leadership.

These examinations of consistency and prescriptiveness indicate that few districts are attempting to provide leadership in content decision making. While districts do not support teacher autonomy in content decisions, neither do they provide clear and specific suggestions for instructional content through the full range of instructional policy areas.

It may be that districts consider each policy area separately, rather than considering them as different aspects of leadership in content decision making; that is, a district may decide that teachers should aim their

instruction at improving performance on a particular test but not see any connection to textbook policies or policies on instructional time. If districts do take that one-policy-at-a-time approach, one can still ask what they do to get teachers to adopt any particular goal. We showed earlier that they do not typically use carrots and sticks (power). We turn now to considering what districts might do and have done to gain teachers' willing cooperation with individual content policies.

Supporting Policies With Authority

To gain teachers' willing cooperation, districts must persuade teachers that there are good reasons for the district policies. Looking at the attributes of authority associated with a particular policy is a productive way to consider what districts are doing, and what they might do. To review our earlier distinction between power and authority, a policy has power if teachers feel they would be rewarded or punished depending on whether or not they went along; a policy has authority if teachers feel that good reasons (besides expectations of reward and punishment) support the policy. This represents a shift from going along with a policy because they feel compelled to do so to implementing a policy because they have been convinced that it is a good policy.

As mentioned in the discussion of power, teachers surveyed were asked a set of questions that assessed their beliefs about whether district policies (objectives, testing, and textbooks) had particular attributes of authority; curriculum directors were asked similar questions about objectives.

The survey distinguished four types of authority: appeal to law, consistency with social norms, agreement with expert knowledge, and support from a charismatic individual. For these policies, appeal to law meant that the teachers believed they had a legal obligation to comply with the policy.

Social norms were considered in terms of parent or community support for the policy, in terms of consistency with what teachers had been teaching, and in terms of agreement with what teachers thought should be taught. Agreement with expert knowledge meant adequate involvement of individuals with subject matter expertise (in this case expertise in mathematics education) and adequate involvement of teachers, who have expertise in classroom instruction. Finally, charismatic authority was assessed by asking whether the policy had advocates with the kind of personality needed to get it accepted by teachers. The survey questions had the same format as the questions about the use of power to support district policies.

Across districts, teachers believed that district policies drew on each source of authority to some extent. The results for various sources of authority are presented in Tables 4 through 10. Overall, these tables show that most districts are doing more than simply dictating policies. They are also taking steps to give policies authority.[7] Except for the policy of district testing, involving teachers themselves (a form of expert authority) was the most widely and visibly used means of giving these policies authority (see Table 6). Consideration should be given to that discrepancy for testing programs. It may be due to appropriate considerations about teachers' expertise in achievement testing, but it may also be due to features of school organization (e.g., a separate testing and evaluation unit). This indication that teacher involvement is used to confer authority is supported by the extensive use of policies that match content teachers think ought to be taught (a form of social authority) as shown in Table 10.

Table 4

Presence of LEGAL AUTHORITY Among Districts With a Policy[a]

Policy	Strongly Agree to Agree	Agree to No Opinion	No Opinion to Disagree	Disagree to Strongly Disagree
Objectives	24.2%	51.1%	20.5%	4.2%
Test	18.6%	49.4%	27.5%	4.5%
Textbook	18.9%	53.4%	25.7%	2.0%

Table 5

Presence of CHARISMATIC AUTHORITY Among Districts With a Policy[a]

Policy	Strongly Agree to Agree	Agree to No Opinion	No Opinion to Disagree	Disagree to Strongly Disagree
Objectives	11.6%	62.6%	25.3%	0.5%
Test	11.2%	48.3%	35.4%	5.1%
Textbook	7.4%	66.2%	25.0%	1.4%

Table 6

Presence of AUTHORITY FROM ADEQUATE TEACHER INVOLVEMENT Among Districts With a Policy[a]

Policy	Strongly Agree to Agree	Agree to No Opinion	No Opinion to Disagree	Disagree to Strongly Disagree
Objectives	46.3%	45.3%	8.4%	0.0%
Test	16.9%	41.0%	32.6%	9.5%
Textbook	56.1%	33.1%	6.8%	4.0%

[a] Expressed as percentage of districts with policy of this type.

Table 7

Presence of AUTHORITY FROM ADEQUATE INVOLVEMENT OF MATHEMATICS EDUCATION EXPERTS Among Districts With a Policy [a]

Policy	Strongly Agree to Agree	Agree to No Opinion	No Opinion to Disagree	Disagree to Strongly Disagree
Objectives	35.8%	48.9%	14.2%	1.1%
Test	21.9%	50.0%	21.4%	6.7%
Textbook	25.7%	53.4%	18.9%	2.0%

Table 8

Presence of SOCIAL AUTHORITY (Parents/Community Leaders are Pleased) Among Districts With a Policy [a]

Policy	Strongly Agree to Agree	Agree to No Opinion	No Opinion to Disagree	Disagree to Strongly Disagree
Objectives	13.1%	75.3%	11.6%	0.0%
Test	11.8%	67.4%	19.7%	1.1%
Textbook	10.1%	80.4%	9.5%	0.0%

Table 9

Policy Designed to MATCH WHAT TEACHERS WERE ALREADY Doing [a]

Policy	Strongly Agree to Agree	Agree to No Opinion	No Opinion to Disagree	Disagree to Strongly Disagree
Objectives	6.3%	58.4%	33.7%	1.6%
Test	4.5%	46.6%	40.5%	8.4%
Textbook	5.4%	53.4%	40.5%	0.7%

[a] Expressed as a percentage of districts with policy of this type.

Table 10

Policy MATCHES CONTENT TEACHERS THINK OUGHT TO BE TAUGHT[a]

Policy	Strongly Agree to Agree	Agree to No Opinion	No Opinion to Disagree	Disagree to Strongly Disagree
Objectives	50.0%	46.3%	3.7%	0.0%
Test	25.9%	49.4%	21.9%	2.8%
Textbook	37.8%	54.7%	6.1%	1.4%

[a] Expressed as percentage of districts with policy of this type.

Involvement of mathematics education experts (another way of lending expert authority) is the second most widely used type of authority (see Table 7). While this may suggest that districts are providing leadership by drawing on the support of content experts, it may also suggest that districts are delegating leadership responsibility to outside consultants. That latter possibility may lead to well-supported decisions about the direction in which the district should go, but the removal of responsibility from full-time district staff may also be an explanation for the apparent lack of coordination of policies seen earlier. Other forms of authority are all used to a lesser extent.

These data suggest that many districts take some steps to gain teachers' support for their policies. But much more could be done, both to add additional authority to individual policies and to coordinate policies so that they combine to provide a clear and authoritative message about the content decisions teachers should make. The literature on school principals shows that such strong leadership has a strong effect when it is present, which it seldom is. More could be done at the district level as well. The question of effects deserves empirical test.

Conclusion

The call for educational improvement has been loudly repeated by government officials, educators, and parents. A central feature of many recommendations is changing what is taught, most recently emphasizing traditional academic topics for all students. Regardless of the direction of reform, school districts seem eager to make changes, but uncertain about how they can be carried out.

The success of curriculum reforms depends on the content decisions teachers make in their individual classrooms. The crucial questions to ask are ones about the relationship between possible policies and probable teacher decisions. Scholars and practitioners often forget about the influence that teachers' decisions, and prevailing teaching practice, can and should have on their policies. But the relationship they do think about--the impact of policies on teachers--also deserves reconsideration.

The scholarly literature on teaching and policy criticizes districts for oppressive control and advocates a radical shift toward teacher autonomy. This literature covers the whole range of policies, without considering the possibility of differences between, for example, academic content and other policy areas. Our examination of elementary-school mathematics content policies finds few districts that deserve such criticism and few that have the inservice education budgets and capacities required for giving substantive preparation for teacher autonomy.

The remaining alternatives represent a continuum from exercising strong instructional leadership to doing nothing. "Instructional leadership" is a phrase thrown into educational debates, with particular reference to principals. This concept needs to be explored, so that it is not seen simply

as charismatic presence, as authoritarian control, or as efficient management. This paper begins such discussion and research.

A charitable view of most districts' policies would be that they represent a compromise between teachers' desires to make their own decisions and the districts' desire for a common curriculum. But this view will not stand up to scrutiny. In the absence of both strong leadership and support for well-grounded professional autonomy, content decisions are left to chance and whim.

Abdicating responsibility for content selection may be a functional response to the variety encompassed by American education. No one, neither teachers, administrators, nor politicians, tries to carry through a uniform plan for curriculum, perhaps because all recognize the absence of consensus about the purposes of American schools. Perhaps chance and whim are an appropriate means for ensuring diversity.

The centrality of academic content to school instruction, however, makes this a dangerous position. Diversity is important, but so is selection. Teachers and policymakers both have important roles in content decisions, and enhancing their insight into the network of relationships between content policy and teaching may improve instruction. But improvement will not be easy. Getting agreement on academic content and putting those agreements into practice are two of the most difficult educational tasks. They are also two of the most important.

Footnotes

1 There may be advantages to locating leadership at the district level. Many principals lack the knowledge and vision required to exercise instructional leadership (Floden et al., 1984). Principals are not necessarily trained in curriculum. They may therefore find it difficult to make sound judgments about what content should be taught. The problem of locating enough individuals with the time, knowledge, and vision to provide adequate leadership may be reduced by moving leadership to the district level. Large districts have subject matter coordinators with training and experience in particular subject areas. Even smaller districts are likely to have a central administrator for whom curriculum is an area of special preparation and responsibility.

2 Support for these suggestions comes from a combination of common sense, sociological theory, and empirical studies of teachers' content decisions. In this paper we will not examine the individual contributions of each of these factors. (For such an analysis, see Porter et al., 1983.) Instead, we describe this set of factors as a framework for considering what districts have been doing to control school curriculum and illustrate the description with an empirical analysis.

3 These states were also used in a concurrent study of differences among state curriculum policies and practices (Schwille et al., in press). That study covered the five states surveyed, plus Indiana and Ohio. These seven states were chosen in three stages. In the first stage, a literature review, drawing on published and unpublished sources, was used to construct a 50-state profile of specified policies, such as state assessment and textbook adoption. This profile was supplemented with structured interviews of 22 experts in such areas as mathematics education, politics of education, and educational testing. These experts were asked to nominate states with specified attributes, such as unusual activity in less well-known policy areas, including grade-to-grade promotions, ability grouping, and emphasis on special topics in mathematics. In the second stage we selected 20 states and within each state interviewed a state mathematics specialist (or other person primarily responsible for mathematics education). The data gathered on these 20 states were used in the third stage to make a final selection.

California, Florida, and New York were selected for having a variety of seemingly strong policies. These three states were consistently nominated by our expert informants and have been frequent objects of attention in the earlier literature. South Carolina was chosen becuse its apparently strong policies were generally of recent origin and still under development. Ohio and Indiana were selected because, on first acquaintance, they appeared to have relatively weak policies with much responsibility delegated to districts. Michigan was included as yet a third weak policy state and one in which we would gain a better understanding of the state context within which our other studies of teacher content decisions have been conducted. For the survey, we decided to avoid including three Midwestern states with weak policies. Because of our special interest in Michigan, we decided to include it, but to exclude Indiana and Ohio.

4 Because we wished to survey at least two fourth-grade teachers and two principals in each district, districts with only a single elementary school

were eliminated from the sample. Since such districts represent a relatively small fraction of the school age population within any of these states, we ignore this restriction of the sample when interpretating survey responses.

[5] The district ratings were grouped into four intervals of equal width, dividing the number of districts whose rating fell on the border between two intervals equally between the intervals.

Factor analysis was used to consider whether teachers distinguished among the various types of authority and power. A two-factor solution yielded two main orthogonal factors that clearly separate power questions and most authority questions, with legal authority loaded on both. These two factors accounted for about one-third of the total variance. The question (linked to social authority) about whether policies were set up to match what teachers were already doing defined a third factor. In solutions which allow for greater numbers of factors, matching what teachers are already doing appeared as a separate factor, and parent/community satisfaction was grouped with coverage of what teachers want taught (both versions of social authority). The results of these analyses are generally consistent with the major theoretical distinctions we have drawn between power and authority, and among types of authority (especially between social authority and other types of authority).

[6] Here and elsewhere in the paper, tests for statistically significant differences among policy areas are not made because to do so would have required limiting the sample only to districts having all policies.

[7] The data reported in this section are based on responses from teachers. For district objectives only, comparable data were also available from the curriculum directors. The correlation between teachers and curriculum directors for these questions were modest (in the .25 to .30 range), and on average the curriculum directors saw the authority of their policies as greater than did the teachers in their district.

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